

# Scenario Planning Model

Using Urban Footprint for Regional Planning

Strategic Growth Council

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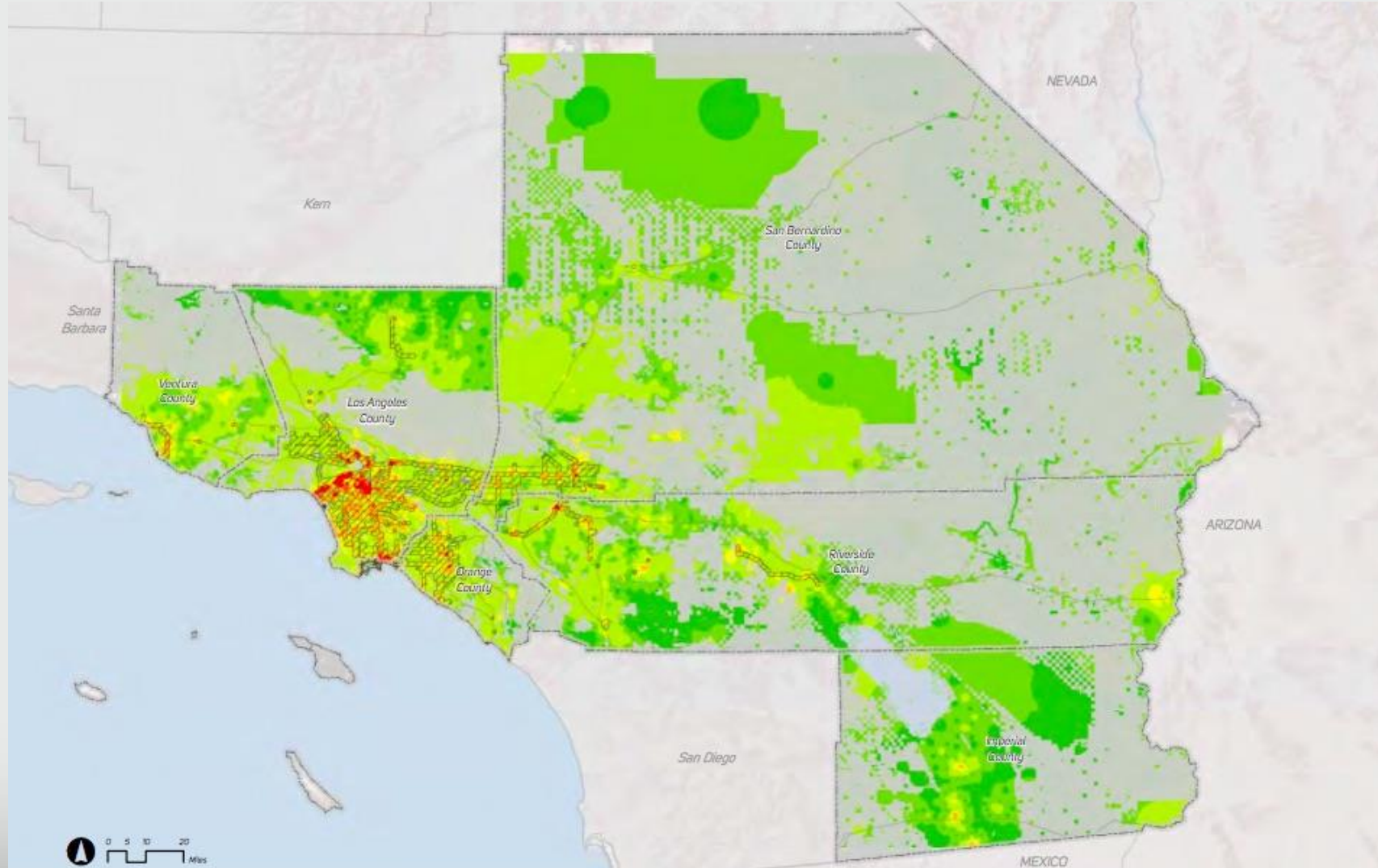


- **Introduction**

- Sustainability Planning Model (SPM)

- SPM Public Health Module

# Regional Profile



# 2016 RTP/SCS Scenario Development

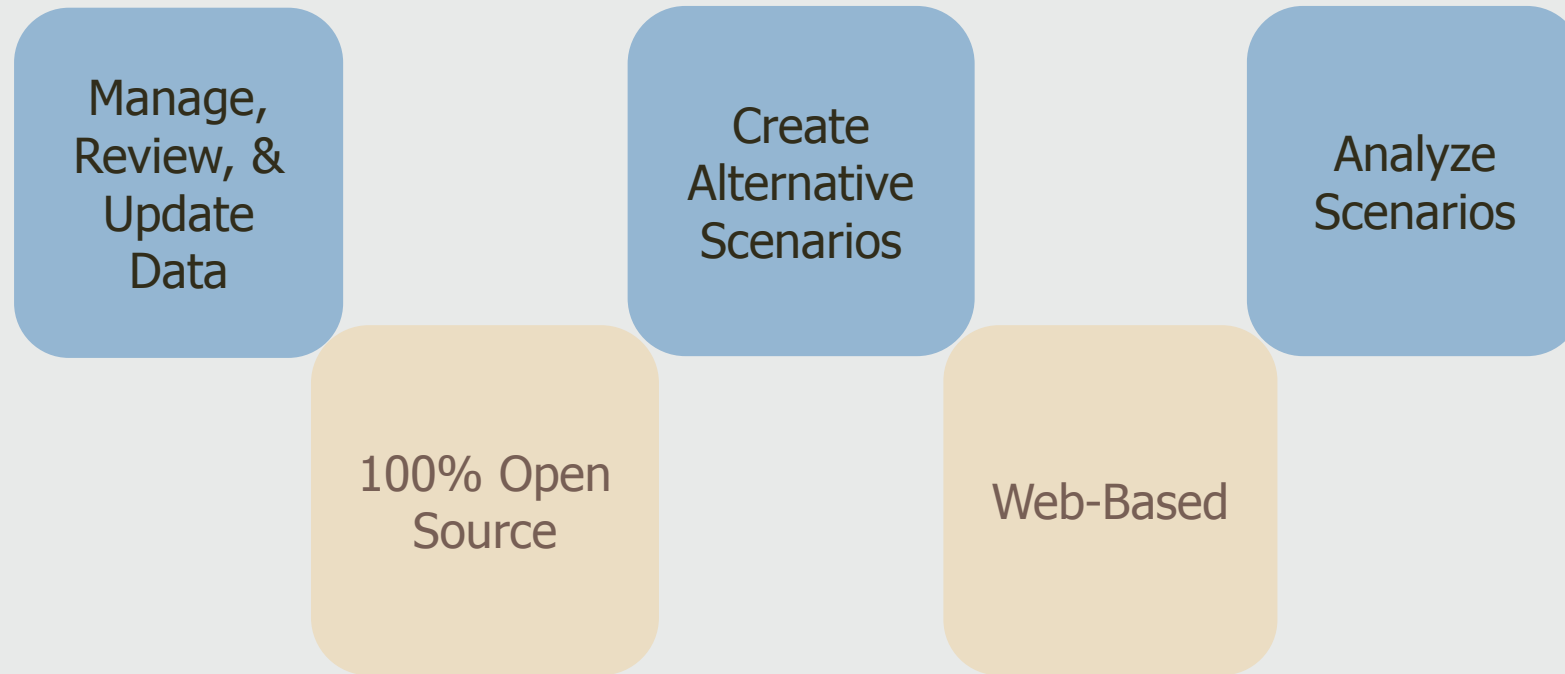
## MAJOR COMPONENTS

	TREND STATUS QUO	2012 RTP/SCS-- UPDATE WITH LOCAL INPUT	POLICY A FURTHER PROGRESS	POLICY B EXCEEDING EXPECTATIONS
Meeting Targets	No	No	Yes	Yes
<b>Transportation Investments</b>	✓ Committed Projects	✓ Updated Committed Projects	✓ HQTa focused ✓ Additional Livable Corridors ✓ 1 <sup>st</sup> /last mile focused ✓ Improved Walkability	✓ Unconstrained transit expansion ✓ Unconstrained Active Transport
<b>Growth Projections (Population, Household &amp; Job)</b>	✓ Trend	✓ Local Input ✓ At all geographic levels	✓ Local Input ✓ At jurisdiction level	✓ Local Input ✓ At jurisdiction level
<b>Housing Mix</b>	Based on Past Trends <i>Growth Increment:</i> 64% Single Family 36% Multifamily/ Townhome	Based on Local Plans <i>Growth Increment:</i> 48% Single Family 52% Multifamily/ Townhome	Based on Shifting Demand <i>Growth Increment:</i> 34% Single Family 66% Multifamily/ Townhome	Based on Shifting Demand <i>Growth Increment:</i> 28% Single Family 72% Multifamily/ Townhome
<b>Land Development Category*</b>	2012–2040 New Growth 3% Urban, 11% Compact, 86% Standard	2012 – 2040 New Growth 13% Urban 32% Compact 55% Standard	2012 – 2040 New Growth 13% Urban 49% Compact 38% Standard	2012 – 2040 New Growth 13% Urban 59% Compact 28% Standard

- Introduction
- **Sustainability Planning Model (SPM)**
- SPM Public Health Module

# Scenario Planning Model

- A web-based land use sketch planning tool for data management, scenario development and modeling

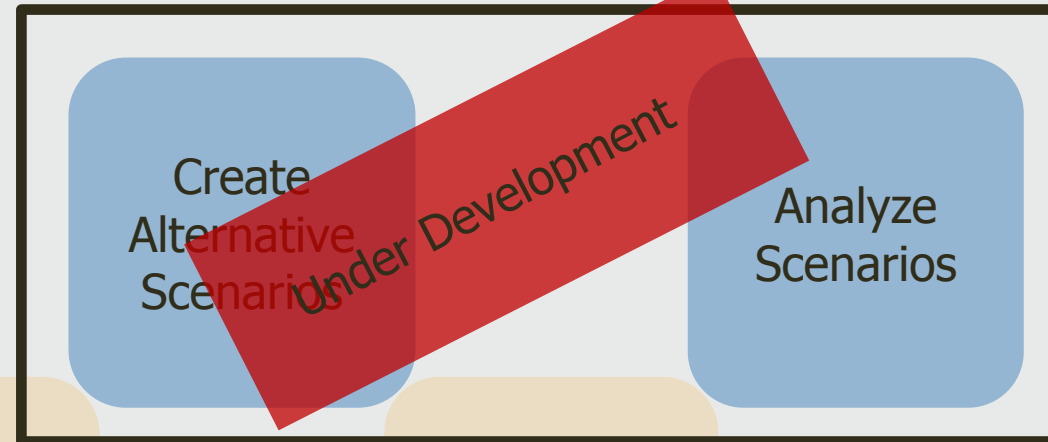


# SPM for Local Jurisdictions

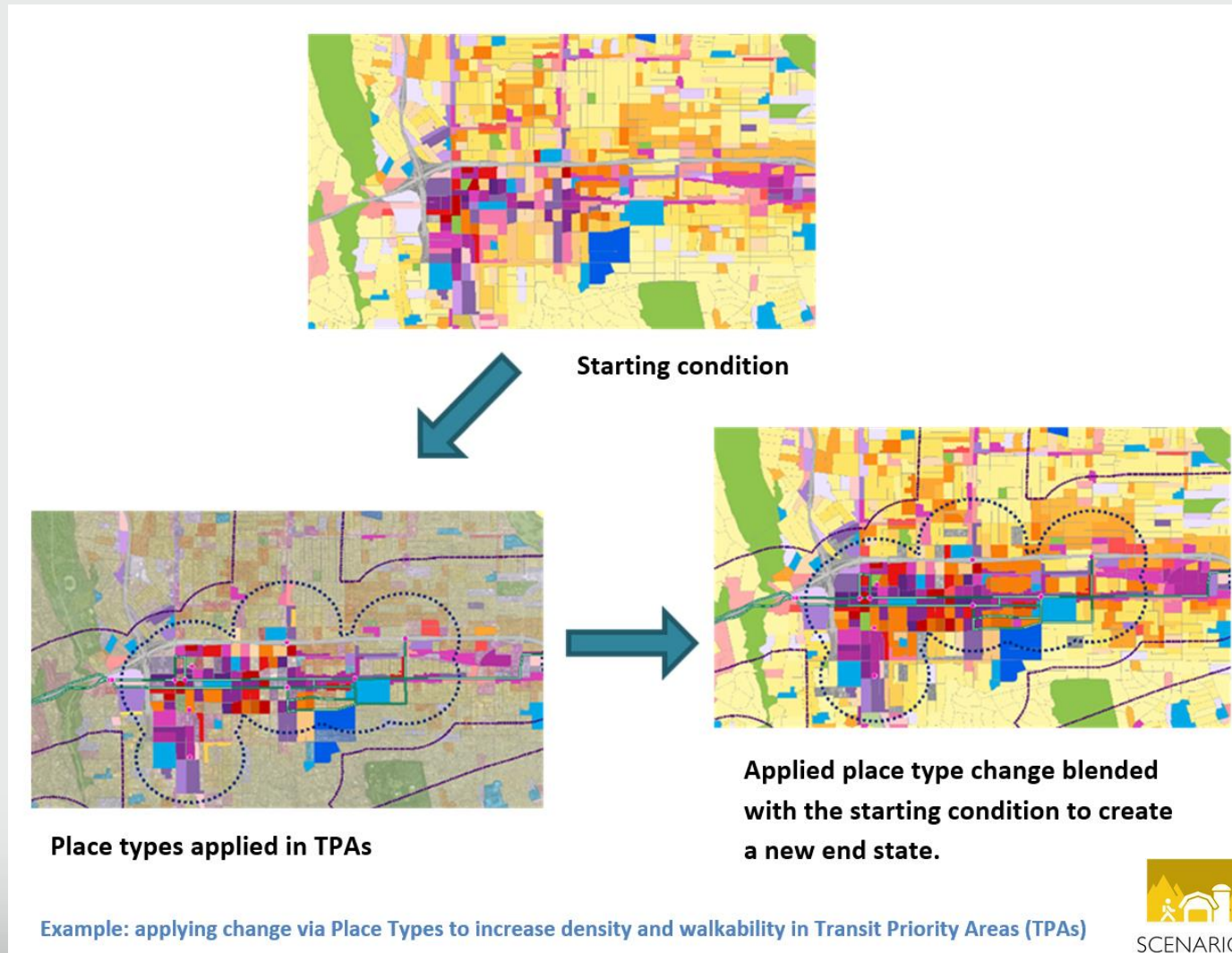
## SPM Data Management (DM)



## SPM Scenario Development (SD)



# Using SPM to Build Scenarios





# Manage, Review & Update Data

## Top Section Menu Pane

The top section menu pane allows the users to toggle between Project Info, Data Explorer, and Approval/Merge options.

## Tools

These tools allow the user to navigate around the map, as well as select and identify map features.

## Layers

This section displays layers that have been preloaded into the Scenario Planning Model and that can be turned on for display and activated for selection, editing, and queries. Functionality that allows a user to customize layer ordering and visibility, as well as import and export capability is also available.



## Style Editor Window

Style Editor Window allows the user to modify the way a layer is displayed on the map.

## User Manager

The User Manager allows managers and admin users to manage users in their jurisdiction.

## Charts

This area contains basic statistics for the jurisdiction (population, household, and employment).

## Layer Editor

The Layer Editor allows the user to edit or comment upon select layer attributes.

## Map Area

This is where all map layers are displayed and where the user makes selections and queries data with tools.

# Create Alternative Scenarios

## Top Section Menu Pane

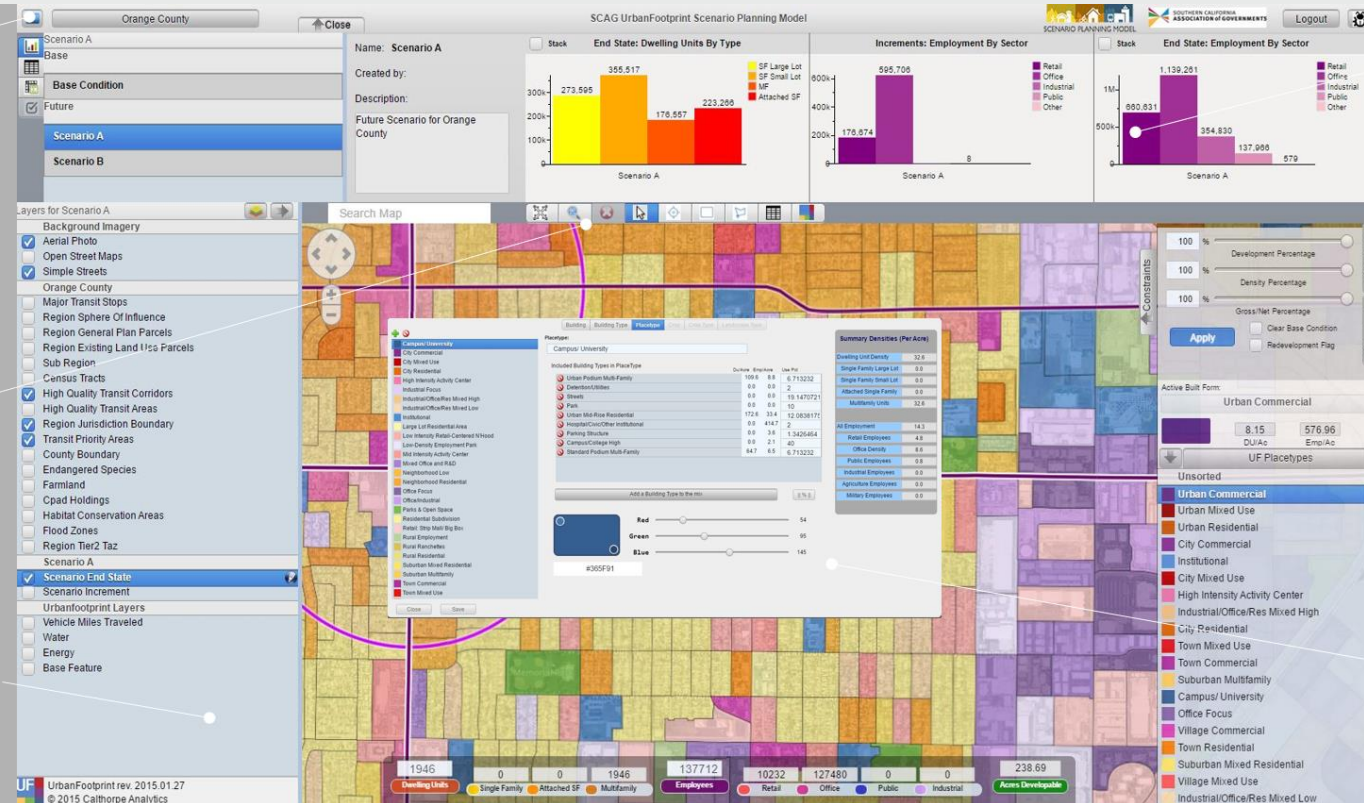
The top section menu drop down allows the users to toggle between Project, Data Explorer, and Approval/Merge options.

## Tools

These tools allow the user to navigate around the map, as well as select and identify map features.

## Layers

This section displays layers that have been preloaded into the Scenario Planning Model as well as scenario and analysis layers, and that can be turned on for display and activated for selection, editing, and queries.



## Charts

This area displays basic statistics for the jurisdiction when in Editor mode or summary analysis for scenarios when in Analysis mode.

## Editor/Analysis Panels

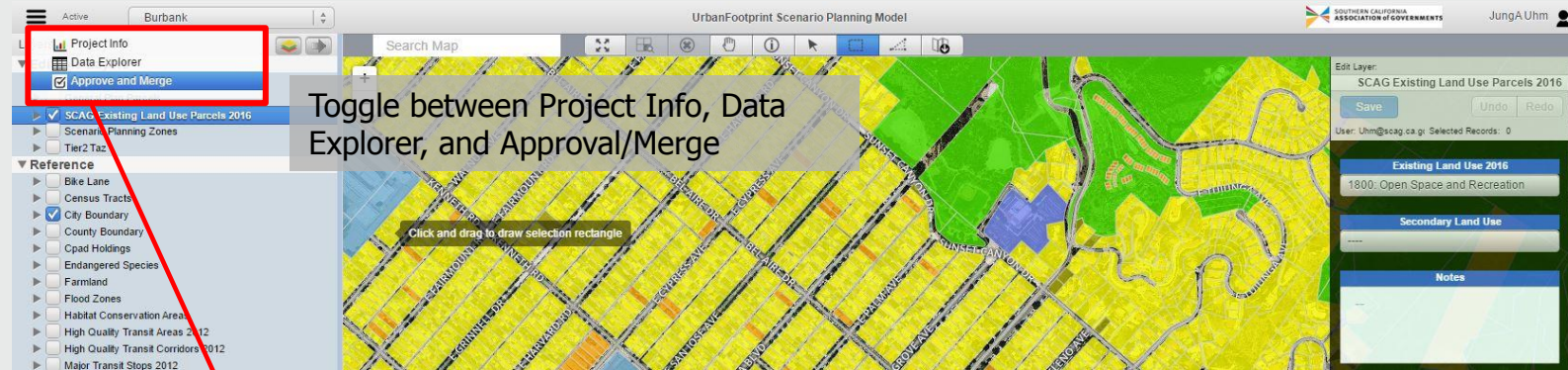
The collapsible Editor and Analysis Panels allow the user to review, edit or select built form or to select and run analysis modules.

## Built Form Manager Window

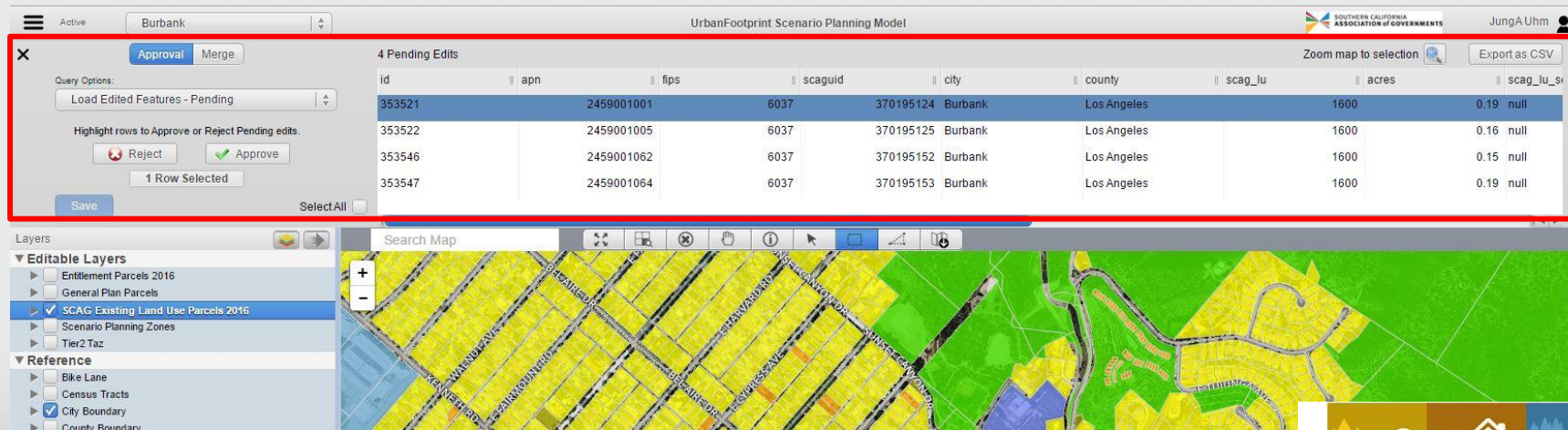
Built Form Manager Window allows the user to modify predefined place and building types.



# Local Manager Approval



Review and approve/reject edits



# Visualizing Regional Growth



Scenario 1

- Introduction
- Sustainability Planning Model (SPM)
- **SPM Public Health Module**

# California Public Health Assessment Model

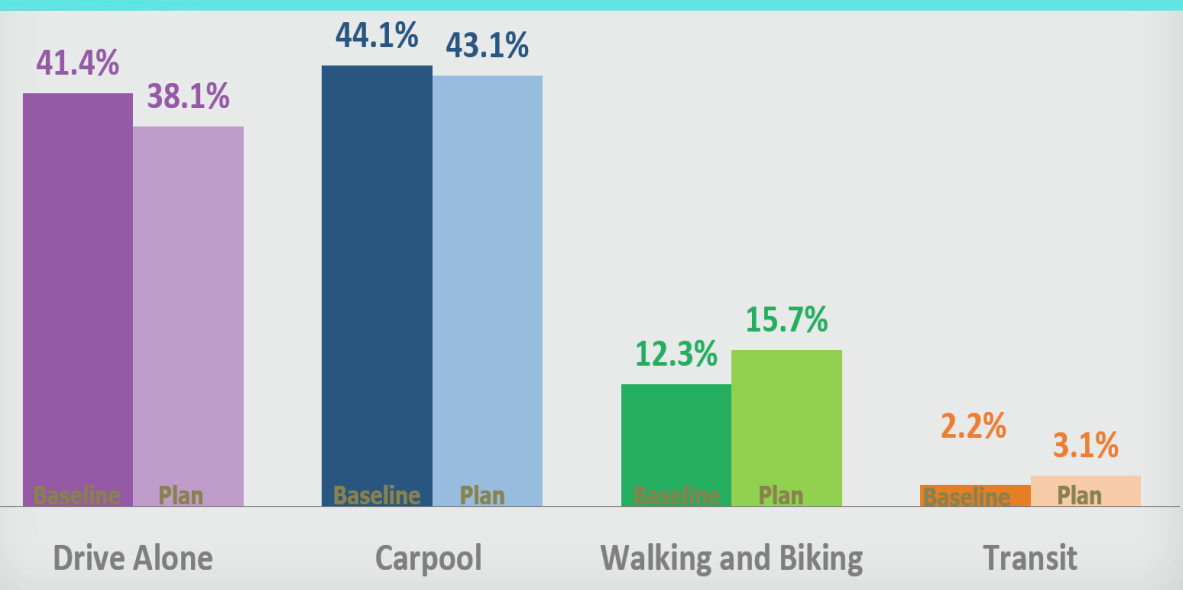


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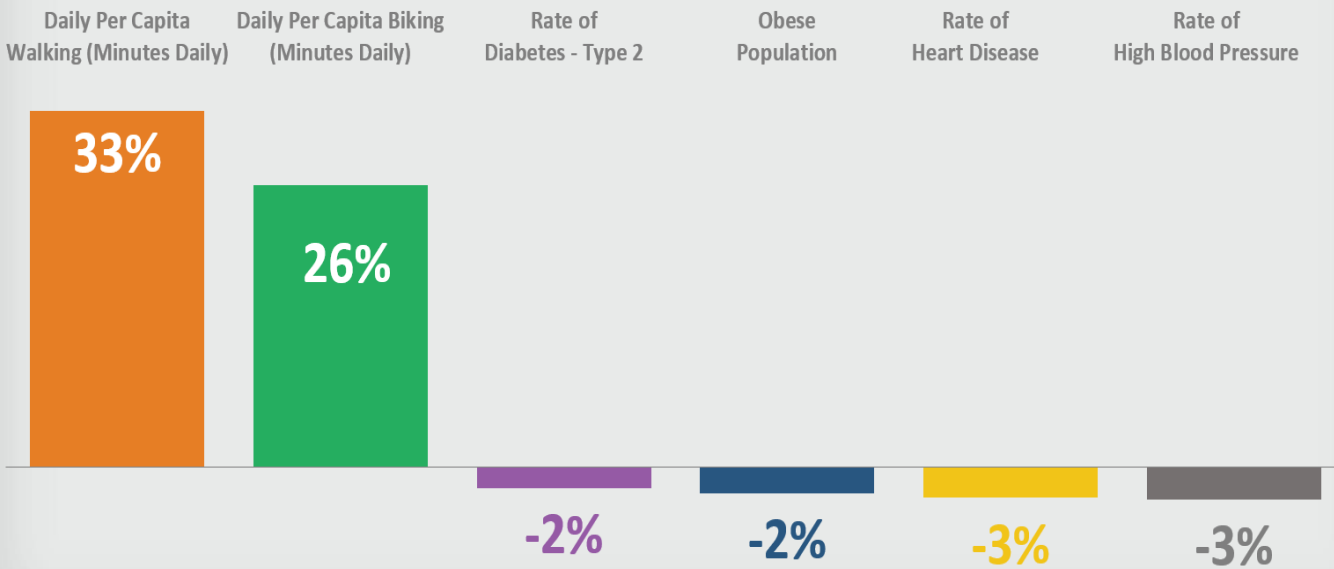
# Mode Choice & Public Health



Note: These figures include additional improvements in walking and biking associated with the benefits of certain active transportation investments, which are analyzed as a supplement to SCAG's Regional Trip Based Model

Public Health Outcomes  
in 2040 – Adults Aged 18-65  
Plan vs. Trend Baseline

Mode Choice in 2040  
Plan vs. Trend Baseline



\* Results are for the new population in areas of the plan experiencing land use changes.

# Current Costs to the Region



**\$12.8 Billion**

Total annual regional costs of diabetes, heart disease, and hypertension in ages 18-64. Seniors add an additional \$8.5 billion in health costs for the same conditions.



# Additional Savings from 2016 RTP/SCS Implementation

## Predicted Annual Physical Activity Savings in 2040 for Adults (Age 18-64)

Diabetes

\$167M

Heart Disease

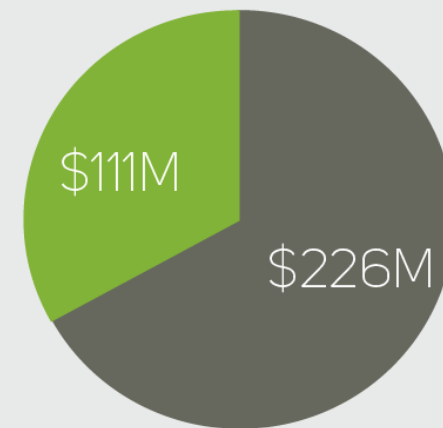
\$122M

Hypertension

\$48M

## \$337 Million

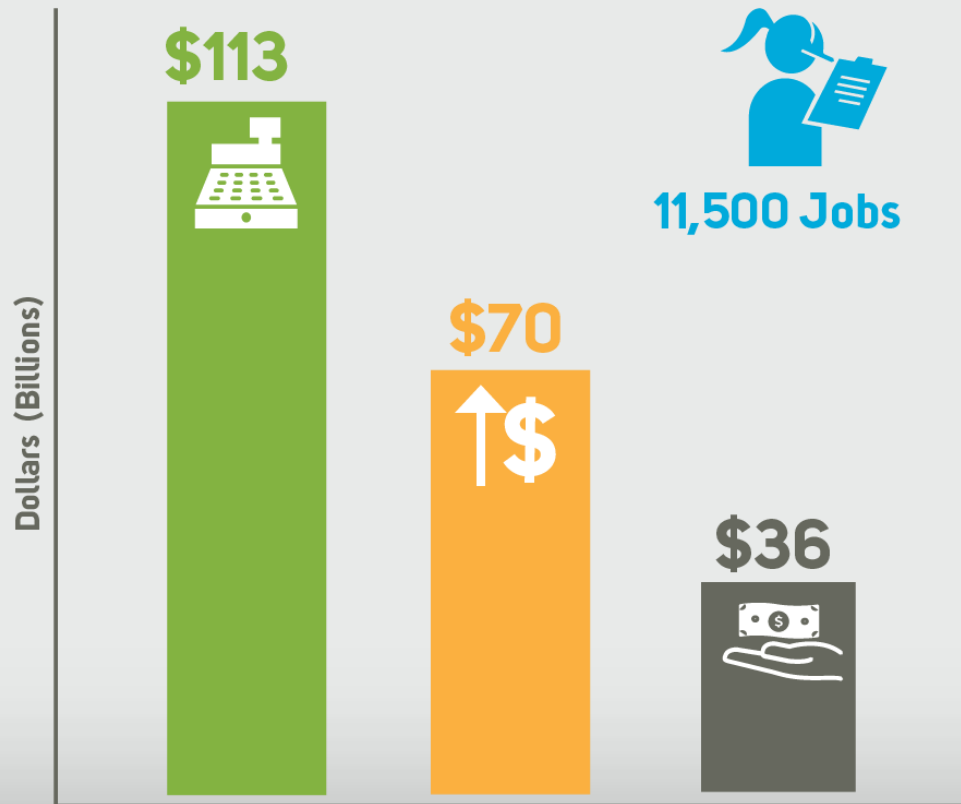
Predicted annual physical activity savings in 2040 in adults ages 18-64 from full RTP implementation



■ Direct costs (health care savings)  
■ Indirect costs (increased productivity)

# Regional Impact

## Average Annual Economic Impacts due to Active Transportation



### Employment (total jobs)

The total number of jobs associated with active transportation infrastructure spending and the associated health effects



### Personal Income (\$B)

Employment total multiplied by average wages by position type



### Sales Output (\$B)

Sales output discounted for prior stages of manufacturing that occurred outside the SCAG region.



### Value Added (\$B)

The difference between retail sale prices and the cost to purchase the item being sold.

# Questions

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